

# Work Order ID 131183

Monday, March 30, 2015 9:10:45 AM

**\*131183\***

Page 1

Item ID: D350-748-203 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: SS Aft Crosstube AS350 / AS355  
 Start Date: 3/30/2015 Start Qty: 1.00 **\*1\*** Cust Item ID:  
 Required Date: 3/30/2015 Req'd Qty: 1.00 **\*1\*** Customer:  
 Reference:

Approvals: Process Plan: MCS Date: 15-03-30 Tooling: Date: Run Start **\*NR1\***  
 QC: Date: SPC (Y/N): Date: Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description                                                      | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|-------------------------------------------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| Draw Nbr                       | Revision Nbr                                                                  |                      |         |        |              |               |               |                  |                |
| D350-748-243                   | A                                                                             |                      |         |        |              |               |               |                  |                |
| 100                            | Document Control                                                              | 0.00                 | DAS     | 6      |              |               |               |                  | DAS            |
| <b>*100*</b>                   | DOCUMENT CONTROL                                                              |                      |         | 9-89   |              |               |               |                  | 02             |
| DC                             | Memo                                                                          | 0.00                 |         |        |              |               |               |                  | 9-89           |
| Doc.Control -USB or Paperwork  | Photocopy bluefile & type labels per PPPD350-748-201                          |                      | CHG001  |        |              |               |               |                  | SEP 22 2015    |
| 110                            | BENDING MACHINE - CROSSTUBES                                                  | 0.00                 |         |        |              |               |               |                  |                |
| <b>*110*</b>                   |                                                                               |                      |         |        |              |               |               |                  |                |
| CNC Bend 2                     | Memo                                                                          | 0.00                 |         |        |              |               |               |                  |                |
| CNC Alpha 160 Bender           | Bend tube as per Dwg D350-748-243 using CNC bender program D350A and Folio FT |                      |         |        |              |               |               |                  |                |
|                                | *****UNDER BEND .225" PER SIDE*****                                           |                      |         |        |              |               |               |                  |                |
|                                | ***USE (4) DT9824 SHIM BLOC TO CHECK STRAIGHTNESS***                          |                      |         |        |              |               |               |                  |                |

15-08-10

**P.T.O.**

last page

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Item ID: D350-748-203

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**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Item Name: SS Aft Crosstube AS350 / AS355

Stop **\*NS2\***

Start Date: 3/30/2015 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 3/30/2015 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description                                    | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|-------------------------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 120                            |                                                             |                      |         |        |              |               |               |                  |                |
| <b>*120*</b>                   |                                                             |                      |         |        |              |               |               |                  |                |
| Crosstubes                     | Memo                                                        | 0.00                 |         |        |              |               |               |                  |                |
| Crosstubes                     | ****VERIFY CROSSTUBE DIMENSIONS AS PER DWG****              |                      |         |        |              |               |               |                  |                |
| 127                            | QC15- Crosstube Dimensional Check                           | 0.00                 |         |        |              |               |               |                  |                |
| <b>*127*</b>                   |                                                             |                      |         |        |              |               |               |                  |                |
| QC                             | Memo                                                        | 0.00                 |         |        |              |               |               |                  |                |
| Quality Control                | ***MARK CUT LINES***                                        |                      |         |        |              |               |               |                  |                |
| 128                            |                                                             | 0.00                 |         |        |              |               |               |                  |                |
| <b>*128*</b>                   |                                                             |                      |         |        |              |               |               |                  |                |
| Crosstubes                     | Memo                                                        | 0.00                 |         |        |              |               |               |                  |                |
| Crosstubes                     | CUT TUBE AT HEIGHT ON FAI SHEET                             |                      |         |        |              |               |               |                  |                |
|                                | VERF HEIGHT <u>31.35</u> BY QC 15 LEVEL INSPECTOR <u>EB</u> |                      |         |        |              |               |               |                  |                |
|                                | VERF TWIST <u>1.036</u> BY QC15 LEVEL INSPECTOR <u>EB</u>   |                      |         |        |              |               |               |                  |                |

EB  
15-08-12  
DAS  
49  
9-89

BC EB/08/11

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**\*131183\***

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Item ID: D350-748-203

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**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Item Name: SS Aft Crosstube AS350 / AS355

Stop **\*NS2\***

Start Date: 3/30/2015 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 3/30/2015 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description                                                                            | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|-----------------------------------------------------------------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 130                            | Crosstubes                                                                                          | 0.00                 |         |        |              |               |               |                  |                |
| <b>*130*</b>                   |                                                                                                     |                      |         |        |              |               |               |                  |                |
| Crosstubes                     | Memo                                                                                                | 0.00                 |         |        |              |               |               |                  |                |
| Crosstubes                     | 2- Drill Tube as per Dwg D350-748-243 Using DT8876 Drill Jigs,<br>Set-up drill table as per QSI 010 |                      |         |        |              |               |               |                  |                |
|                                | 3 -Deburr                                                                                           |                      |         |        |              |               |               |                  |                |
|                                | 4- Engrave Part # and Batch # as per Dwg D350-748-243                                               |                      |         |        |              |               |               |                  |                |
|                                | 5-Remove all marks from tube within limits of D350-748-243                                          |                      |         |        |              |               |               |                  |                |
| 140                            | QC6- Inspect dimensions to drawing                                                                  | 0.00                 |         |        |              |               |               |                  |                |
| <b>*140*</b>                   |                                                                                                     |                      |         |        |              |               |               |                  |                |
| QC                             | Memo                                                                                                | 0.00                 |         |        |              |               |               |                  |                |
| Quality Control                |                                                                                                     |                      |         |        |              |               |               |                  |                |

BL 15/08/12

JW 15-08-19

QC5  
DAS  
9  
9-89

1 0

DAS  
49  
9-89

15/08/21

**Work Order ID 131183**

Monday, March 30, 2015 9:10:45 AM

**\*131183\***

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Item ID: D350-748-203

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**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID:

Stop

**\*NS2\***

Item Name: SS Aft Crosstube AS350 / AS355

Start Date: 3/30/2015 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 3/30/2015 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

174

Outsource process - NDT per QSI038 4.1

0.00

**\*174\***

Outsource2

Memo

0.00

Outsource process - NDT

ISSUE P/O TO ACCUREN: 29562

AUG 24 2015

176

Receive &amp; Inspect for Damage &amp; Mat'l Certs

0.00

**\*176\***

Packaging

Memo

0.00

Packaging

AUG 26 2015

DAS  
38  
9-89

178

QC5- Inspect part completeness to step on W/O

0.00

**\*178\***

QC

Memo

0.00

Quality Control

DAS  
38  
9-89

AUG 27 2015

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Page 5

Item ID: D350-748-203

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**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Item Name: SS Aft Crosstube AS350 / AS355

Stop **\*NS2\***

Start Date: 3/30/2015 Start Qty: 1.00 **\*1\***

Cust Item ID:

Required Date: 3/30/2015 Req'd Qty: 1.00 **\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description                                                          | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp    |
|--------------------------------|-----------------------------------------------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|-------------------|
| 180                            | SprayPaint                                                                        | 0.00                 |         |        |              |               |               |                  | DAS<br>41<br>9-89 |
| <b>*180*</b>                   |                                                                                   |                      |         |        |              |               |               |                  |                   |
| SprayPaint                     |                                                                                   | 0.00                 |         |        |              |               |               |                  |                   |
| Spray Painting                 |                                                                                   |                      |         |        |              |               |               |                  |                   |
|                                |  |                      |         |        |              |               |               |                  |                   |
|                                | Memo                                                                              |                      |         |        |              |               |               |                  |                   |
|                                | 1-Prime inside and out crosstube as per QSI 005 4.2                               |                      |         |        |              |               |               |                  |                   |
|                                | BATCH: <u>132384</u>                                                              |                      |         |        |              |               |               |                  |                   |
|                                | 2-Paint Outside of Tube as per Dart QSI 005 4.2                                   |                      |         |        |              |               |               |                  |                   |
|                                | BATCH: <u>132664</u>                                                              |                      |         |        |              |               |               |                  |                   |
|                                | <i>SEE Attached</i>                                                               |                      |         |        |              |               |               |                  |                   |
| 190                            | QC14- Inspect Spray Paint                                                         | 0.00                 |         |        |              |               |               |                  | DAS<br>38<br>9-89 |
| <b>*190*</b>                   |                                                                                   |                      |         |        |              |               |               |                  |                   |
| QC                             |                                                                                   | 0.00                 |         |        |              |               |               |                  |                   |
| Quality Control                |                                                                                   |                      |         |        |              |               |               |                  |                   |
|                                | Memo                                                                              |                      |         |        |              |               |               |                  |                   |
|                                | Then, Wrap in plastic bag to protect from scratches                               |                      |         |        |              |               |               |                  |                   |

POSITIVE RECALL

EFFECTIVE 15/03/30 AUTH u

BASED u DATE 15/03/27

*Wait for print scheme*

SEP 08 2015

# Work Order ID 131183

Monday, March 30, 2015 9:10:45 AM

**\*131183\***

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Item ID: D350-748-203 Accept **\*N900040100\*** Setup Start **\*NS1\***  
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 Start Date: 3/30/2015 Start Qty: 1.00 **\*1\*** Cust Item ID:  
 Required Date: 3/30/2015 Req'd Qty: 1.00 **\*1\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description                                                                                                    | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 200                            |                                                                                                                             | 0.00                 |         |        |              |               |               |                  | DAS            |
| <b>*200*</b>                   | Crosstubes                                                                                                                  |                      |         |        |              | 1             |               |                  | 41             |
| Crosstubes                     | Memo                                                                                                                        | 0.00                 |         |        |              |               |               |                  | 9-89           |
| Crosstubes                     | INSTALL GROUND WIRE INSERT, THEN INSERT SCREW AND WASHER                                                                    |                      |         |        |              |               |               |                  | 15-8-28        |
|                                | 1-Abrade mating surfaces of support and crosstube with 180 grit sandpaper, clean the area with MEK or equivalent as per dwg |                      |         |        |              |               |               |                  |                |
|                                | 2-Install supports with Proseal 890 per D350-748-243 and QSI 015                                                            |                      |         |        |              |               |               |                  |                |
|                                | A/R Proseal 890 Batch: <u>132655</u>                                                                                        |                      |         |        |              |               |               |                  |                |
|                                | EXP: <u>3/16</u>                                                                                                            |                      |         |        |              |               |               |                  |                |
|                                | 3-Install supports clamps Using Dt8876 as per Dwg D350-748-243,Torque to 60-80 IN-LBS.                                      |                      |         |        |              |               |               |                  |                |
|                                | PROSEAL CURE TIME 72 HOURS:                                                                                                 |                      |         |        |              |               |               |                  |                |
|                                | Start: <u>15-8-28</u>                                                                                                       |                      |         |        |              |               |               |                  |                |
|                                | Finish: <u>15-8-31</u>                                                                                                      |                      |         |        |              |               |               |                  |                |
| 210                            | QC5- Inspect part completeness to step on W/O                                                                               | 0.00                 |         |        |              |               |               |                  | DAS            |
| <b>*210*</b>                   |                                                                                                                             |                      |         |        |              | 1             |               |                  | 38             |
| QC                             | Memo                                                                                                                        | 0.00                 |         |        |              |               |               |                  | SEP 08 2015    |
| Quality Control                | ***RE-CHECK TORCQUE ON CLAMP AFTER PROSEAL HAS CURED FOR 72HOURS AS PER DWG.***                                             |                      |         |        |              |               |               |                  |                |

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**\*131183\***

Page 7

Item ID: D350-748-203

Accept

**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID:

Item Name: SS Aft Crosstube AS350 / AS355

Stop

**\*NS2\***

Start Date: 3/30/2015 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 3/30/2015 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals:

Process Plan: \_\_\_\_\_

Date: \_\_\_\_\_

Tooling: \_\_\_\_\_

Date: \_\_\_\_\_

Run

Start

**\*NR1\***

QC: \_\_\_\_\_

Date: \_\_\_\_\_

SPC (Y/N): \_\_\_\_\_

Date: \_\_\_\_\_

Stop

**\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

220

Pick Kit

0.00

**\*220\***

Packaging

Memo

0.00

Packaging

27  
9-89

SEP 09 2015

230

QC4- 100% Inspect kits for completeness

0.00

**\*230\***

QC

Memo

0.00

Quality Control

DAS  
02  
9-89

SEP 22 2015

240

Packaging

0.00

**\*240\***

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPPD350-748-203

Location: \_\_\_\_\_

PPP Rev: \_\_\_\_\_

DAS  
02  
9-89

SEP 22 2015

**Work Order ID 131183**

Monday, March 30, 2015 9:10:45 AM

**\*131183\***

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Item ID: D350-748-203

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**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: SS Aft Crosstube AS350 / AS355

Start Date: 3/30/2015 Start Qty: 1.00 **\*1\***

Cust Item ID:

Required Date: 3/30/2015 Req'd Qty: 1.00 **\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description                     | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|----------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 250                            | QC21 - Final Inspection - Work Order Release | 0.00                 |         |        |              |               |               |                  |                |
| <b>*250*</b>                   |                                              |                      |         |        |              |               |               |                  |                |
| QC                             | Memo                                         | 0.00                 |         |        |              |               |               |                  |                |
| Quality Control                |                                              |                      |         |        |              |               |               |                  |                |

MCS SEP 23 2015



# Picklist Print

Monday, March 30, 2015 9:10:49 AM

Page 1

Work Order ID: 131183

**\*131183\***

Parent Item: D350-748-203

**\*D350-748-203\***

Parent Item Name: SS Aft Crosstube AS350 / AS355

Start Date: 3/30/2015

Required Date: 3/30/2015

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 15.03.23 NEW ISSUE DD VERF;JLM

| Component Item ID/<br>Item Name            | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty | Qty<br>Issued | Date<br>Issued    | Status  |
|--------------------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|-------------------|---------|
| MS51958-63<br><b>*MS51958-63*</b><br>Screw |                        | Purchased     | No          |                     |                  |                 | Each               | 50.0000        |             | 1            |               | DAS<br>41<br>9-89 | 15-8-27 |

**\*\***

| Location | Loc Qty | Loc Code |
|----------|---------|----------|
| ST273    | 50      |          |
| m131886  | 50      |          |

AN4-41A

Purchased No

220

Each

229.0000

8

8

**\*AN4-41A\***

Bolt

DAS  
02  
9-89

**\*\***

| Location | Loc Qty | Loc Code |
|----------|---------|----------|
| ST312A   | 209     |          |
| 124836   | 9       |          |
| m130716  | 192     |          |
| m130726  | 8       |          |
| ST340    | 5       |          |
| m124804  | 5       |          |
| ST341    | 15      |          |
| 124805   | 15      |          |

DAS  
6  
9-89

SEP 09 2015

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Parent Item Name: SS Aft Crosstube AS350 / AS355

Start Date: 3/30/2015

Required Date: 3/30/2015

Start Qty: 1.00

Required Qty: 1.00

AN4-6A

Purchased

No

220

Each

1,942.000

16

16

**\*AN4-6A\***

BOLT

DAS  
02  
9-89

\*\*

DAS  
27  
9-89

DAS  
6  
9-89

Location

Loc Qty

Loc Code

CA

143

M128403

43

M130851

100

ST325A

1599

M131153

1599

ST345

200

M128403

8

M128634

192

16

AN5-32A

Purchased

No

220

Each

139.0000

4

4

**\*AN5-32A\***

Bolt

DAS  
02  
9-89

\*\*

DAS  
27  
9-89

DAS  
6  
9-89

Location

Loc Qty

Loc Code

ST299A

123

m130716

23

m131139

100

ST336

16

m128403

7

m128634

9

4

D3500-1

Manufactured

No

220

Each

16.0000

4

4

**\*D3500-1\***

Saddle

DAS  
02  
9-89

\*\*

DAS  
27  
9-89

DAS  
6  
9-89

Location

Loc Qty

Loc Code

ST406

16

125922

5

129372

11

B131618

4

SEP 09 2015

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Page 3

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Required Date: 3/30/2015

Start Qty: 1.00

Required Qty: 1.00

D3501-1

Manufactured No

220

Each

8.0000

16

16

**\*D3501-1\***

Bushing

DAS  
02  
9-89

135919 x 16

\*\*

DAS  
6  
9-89

Location

Loc Qty

Loc Code

ST046

8

125925

1

130742

7

MS21042L4

Purchased No

220

Each

2,634.000

24

24

**\*MS21042L4\***

Locknut

DAS  
02  
9-89

\*\*

DAS  
27  
9-89

DAS  
6  
9-89

SEP 09 2015

Location

Loc Qty

Loc Code

FP001

42

m124231

42

GA

634

m127813

634

ST260a

1056

m130799

56

m131803

1000

ST305

902

426

426

m128300

8

m128798

10

m130922

97

m131340

349

m131618

12

M13238

24

# Picklist Print

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**\*131183\***

**\*D350-748-203\***

Start Date: 3/30/2015

Required Date: 3/30/2015

Start Qty: 1.00

Required Qty: 1.00

MS21042L5

Purchased

No

220

Each

465.0000

4

4

**\*MS21042L5\***

Nut

DAS  
02  
9-89

\*\*

DAS  
27  
9-89

DAS  
6  
9-89

Location

Loc Qty

Loc Code

GA

150

m127813

150

ST305

315

m127813

290

m130388

4

m131340

21

m132677

4

NAS1149D0463J

Purchased

No

220

Each

2,231.000

32

32

**\*NAS1149D0463J\***

WASHER

DAS  
02  
9-89

\*\*

DAS  
27  
9-89

DAS  
6  
9-89

Location

Loc Qty

Loc Code

CA

397

M129682

397

GA

136

M129390

136

ST269

1698

M130799

507

M131624

1191

m132035

32

SEP 09 2015

# Picklist Print

Monday, March 30, 2015 9:10:49 AM

Page 5

Work Order ID: 131183

Parent Item: D350-748-203

Parent Item Name: SS Aft Crosstube AS350 / AS355

**\*131183\***

**\*D350-748-203\***

Start Date: 3/30/2015

Required Date: 3/30/2015

Start Qty: 1.00

Required Qty: 1.00

NAS1149D0563J

Purchased

No

220

Each

799.0000

8

8

**\*NAS1149D0563.J\***

Washer

DAS  
02  
9-89

Location

Loc Qty

Loc Code

GA

130

m125807

130

ST260a

68

113524

3

118206

2

m130799

63

ST269

156

m128257

156

ST271

445

m131026

445

D350-748-243TRN

Manufactured

No

Each

0.0000

**\*D350-748-243TRN\***

Crosstube Installation, High Aft

D3502-1

Manufactured

No

Each

28.0000

**\*D3502-1\***

Support

Location

Loc Qty

Loc Code

LG050

28

119578

2

125926

-2

129420

28

D5123-7

Manufactured

No

Each

0.0000

**\*D5123-7\***

Clamp Cushion

131194

\*\*

DAS  
41  
9-89

15-9-1

SEP 09 2015

27  
9-89

BC 15/08/07

15-8-1

SEP 09 2015

①

2

2

2

# Picklist Print

Monday, March 30, 2015 9:10:49 AM

Page 6

Work Order ID: 131183

**\*131183\***

Parent Item: D350-748-203

**\*D350-748-203\***

Parent Item Name: SS Aft Crosstube AS350 / AS355

Start Date: 3/30/2015

Required Date: 3/30/2015

Start Qty: 1.00

Required Qty: 1.00

AETC-1032

Purchased

No

Each

20.0000

1

DAS

**\*AETC-1032\***

**\*\***

41

Insert

9-89

15-8-27

Location

Loc Qty

Loc Code

st549

20

m131156

20

NAS1149C0363R

Purchased

No

Each

682.0000

1

DAS

**\*NAS1149C0363R\***

**\*\***

41

Washer

9-89

15-8-27

Location

Loc Qty

Loc Code

FP001

120

114742

120

GA

180

m130673

180

ST271

382

m130673

382

MS21920-20

Purchased

No

Each

157.0000

2

DAS

**\*MS21920-20\***

**\*\***

41

Clamp

9-89

15-9-1

Location

Loc Qty

Loc Code

FG

2

122254

2

LG050

155

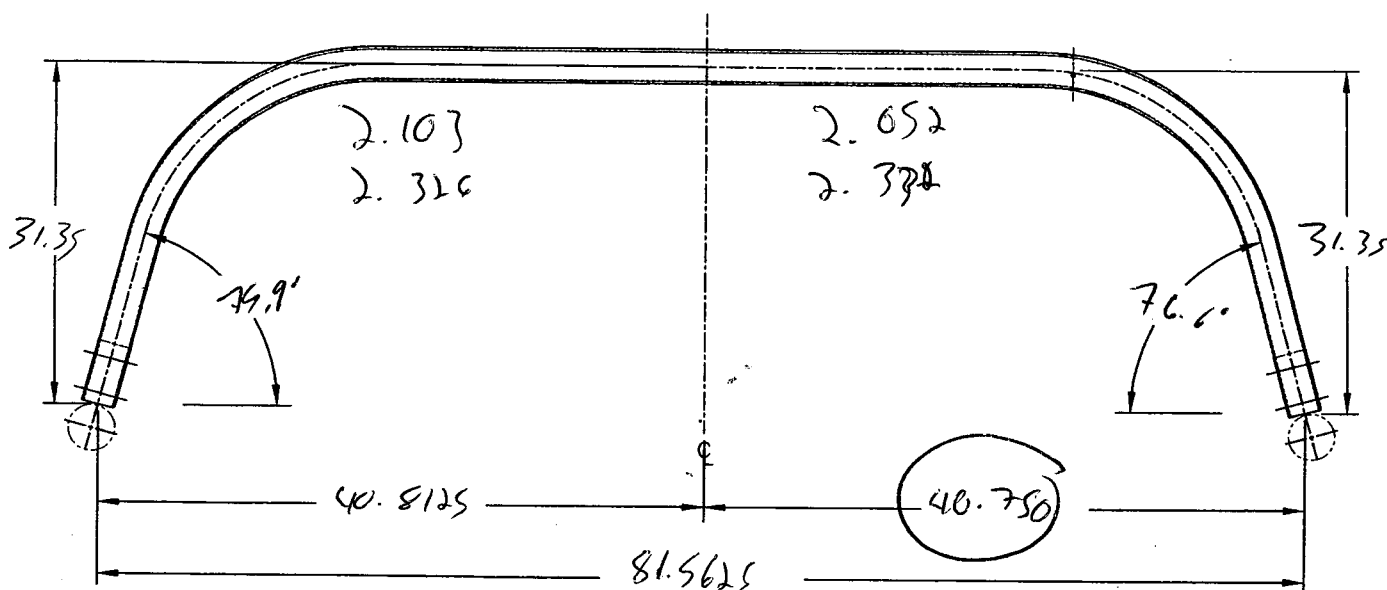
m128650

155

2

|                    |      |              |        |
|--------------------|------|--------------|--------|
| DART AEROSPACE LTD |      | Work Order:  | 131183 |
| Description:       |      | Part Number: |        |
| Inspection Dwg:    | Rev: | Page 1 of 1  |        |

| Required Dimension | Min    | Max    |
|--------------------|--------|--------|
| Height             | 71.100 | 71.600 |
| 1/2 Span           | 40.77  | 41.03  |
| Angle              | 75.0   | 77.0   |
| Total Span         | 81.54  | 81.06  |
| Bending Passes     | 7      |        |
| Crushing           |        | 64     |



|                | Side A | Side B |
|----------------|--------|--------|
| Bending Passes | 30     | 33     |
| Crushing       | 5.0%   | 6.3%   |
| Comments       |        |        |
|                |        |        |
|                |        |        |
|                |        |        |
|                |        |        |

DAS

49

9-89

|                 |          |
|-----------------|----------|
| QC15 Inspection | 9B       |
| Date            | 15-08-12 |

| Rev | Date     | Change                            | Revised by | Approved |
|-----|----------|-----------------------------------|------------|----------|
| A   |          | New Issue                         |            |          |
| B   | 06.09.19 | Reformat; QC level revised        | KJ/JM      |          |
| C   | 07.02.06 | Reformat                          | KJ/JM      |          |
| D   | 12.02.15 | Added bending passes and crushing | KJ         |          |
| E   | 12.03.07 | Revised comments table            | KJ         |          |

| Item | Qty<br>-243 | Part Number                     | Description                                    |
|------|-------------|---------------------------------|------------------------------------------------|
| 1    | X           | D350-748-243                    | CROSSTUBE ASSEMBLY (AS 350/355 HI AFT)         |
| 2    | 1           | D6021-125                       | CROSSTUBE                                      |
| 3    | 2           | D3502-1                         | SUPPORT                                        |
| 4    | 2           | D5123-7                         | CLAMP CUSHION                                  |
| 5    | 1           | AETC-1032                       | INSERT                                         |
| 6    | 2           | MS21920-20<br>OR MS21920-21/-22 | CLAMP<br>(PER DART SPEC. M-MS21920-20/-21/-22) |
| 7    | 1           | NAS1149C0363R                   | WASHER (OR AN960C10)                           |
| 8    | 1           | NAS1635-3-8                     | SCREW (OR MS51958-63)                          |
| 9    | A/R         | PROSEAL 890 B-2                 | SEALANT, AMS-S-8802 CLASS B-2                  |

#### GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6021-125  
FINISHED LENGTH AFTER TURNING = 124.70±0.06 (AFTER BENDING/TRIMMING = 122.70 REF)
- 2) FINISH: PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2  
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCE: PER DART QSI 018 UNLESS OTHERWISE NOTED.  
WALL THICKNESS ECCENTRICITY PER DART QSI 038 7.2  
MIN. ALLOWABLE WALL IS -0.020 FROM NOMINAL
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: DART PART NUMBER "D350-748-243" AND BATCH NUMBER ON INSIDE OF CUFF  
PER DART QSI 044 6.4 (VIBRATING STYLUS)
- 7) WEIGHT: 29.85 lbs
- 8) PART IS SYMMETRIC ABOUT CENTERLINE, EXCEPT FOR Ø0.290 HOLE.
- 9) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE. WHEN DRILLING HOLES EXTREME CARE MUST BE TAKEN AND CAREFUL DEBURRING PERFORMED TO ENSURE A CLEAN HOLE WITH NO CRACKING/CHIPPING/GROOVES.

#### TURNING

- 10) BLEND OUT ALL EDGES FROM MACHINING LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH. NOTE: ALL HOLES ARE DRILLED AFTER BENDING.

#### BENDING

- 11) BEND PROGRESSIVELY WITH A MINIMUM OF 7 PASSES PER SIDE. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 8% BASED ON O.D. ON TOP HALF OF BEND, AND 8% ON BOTTOM HALF OF BEND.
- 12) MAX AMPLITUDE OF RIBBLING ALONG BENT PORTION OF THE TUBE IS 0.030 (ZN A1-3)
- 13) MAX TWIST: WITH XTUBE LAYED FLAT ON SURFACE, THE DIFFERENCE BETWEEN CUFF HEIGHTS FROM THE SURFACE MAY BE NO LARGER THAN 0.38 (ZN C1-3).

#### ASSEMBLY

- 14) TO INSTALL D3502-1 SUPPORT: ABRASE MATING SURFACE OF SUPPORT AND CROSSTUBE WITH 180-GRIT SANDPAPER AND REMOVE RESIDUE WITH MEK (OR EQUIVALENT). APPLY A 0.02" TO 0.05" THICK LAYER OF PROSEAL 890 CLASS B-2 (OR AMS-S-8802 CLASS B-2) SEALANT TO MATING SURFACE OF SUPPORT.
- 15) TORQUE CLAMPS 60 TO 80 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING. PRIOR TO PACKAGING, RE-CHECK TORQUE ON CLAMPS AFTER PROSEAL 890 SEALANT HAS CURED FOR 72 HOURS.

131183 MCT  
1503-30

RELEASED

2015 MAR 18  
4/ ECN 15-547

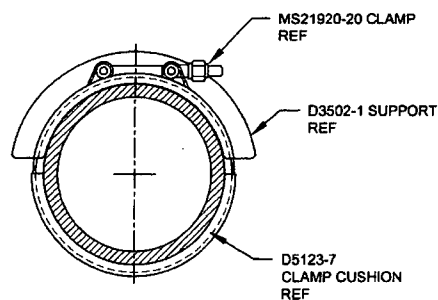
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|------------|-------------|----|----------|
| A          | NEW ISSUE   | CP | 15.01.21 |
| REV.       | DESCRIPTION | BY | DATE     |
| DESIGN     |             |    |          |
| DRAWN      |             |    |          |
| CHECKED    |             |    |          |
| MFG. APPR. |             |    |          |
| APPROVED   |             |    |          |
| DE APPR.   |             |    |          |
| DATE       | 15.01.21    |    |          |

|                                                                                                                                                                                                                                                                          |                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| DART AEROSPACE LTD<br>HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                        |                        |
| DRAWING NO.<br>D350-748-243                                                                                                                                                                                                                                              | REV. A<br>SHEET 1 OF 4 |
| TITLE<br>CROSSTUBE (AS 350/355 HI AFT)                                                                                                                                                                                                                                   | SCALE<br>NTS           |
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**D350-748-243  
ASSEMBLY DETAIL**



**SECTION A-A** D4-2  
SCALE 6X

INSTALL THIS SIDE ONLY, AFTER FINISH:  
AETC-1032 INSERT  
NAS1149C0363R WASHER  
NAS1635-3-8 SCREW

14 15  
D3502-1 SUPPORT  
MS21920-20 CLAMP (OR -21/-22)  
D5123-7 RUBBER CUSHION  
2 PL

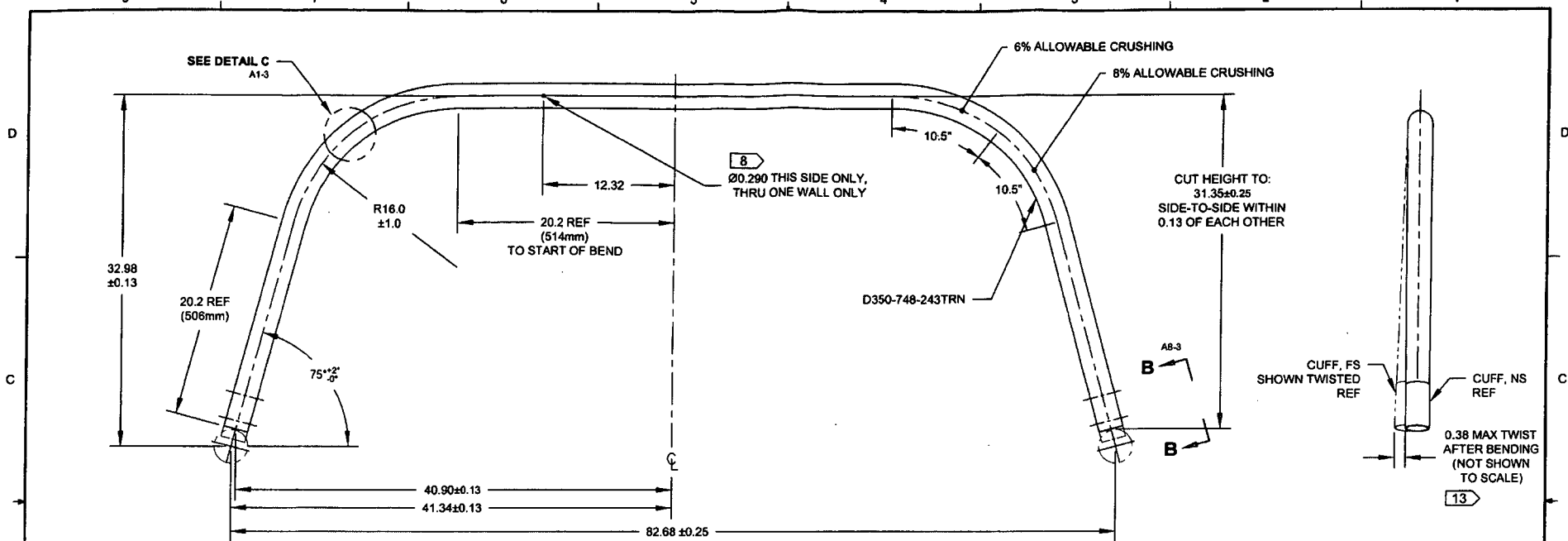
D350-748-243  
BENT TUBE

**RELEASED**

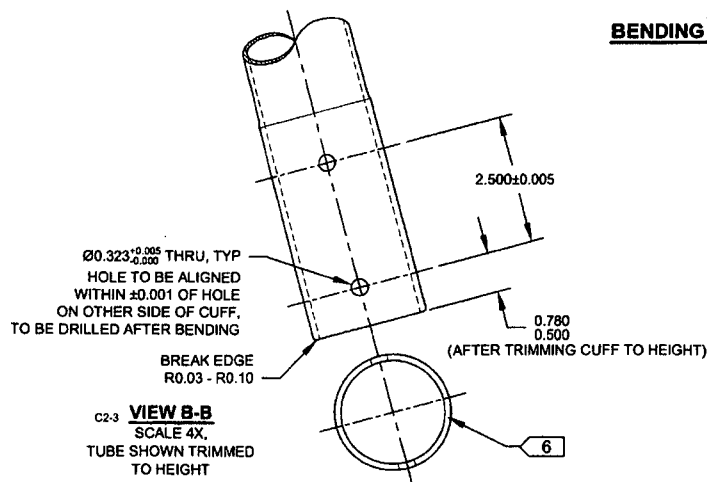
2015 MAR 18

|                                                                                                                                                                                                                                |          |                                       |              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------|--------------|
| DESIGN                                                                                                                                                                                                                         | 90       | <b>DART AEROSPACE LTD</b>             |              |
| DRAWN                                                                                                                                                                                                                          | 90       | HAWKESBURY, ONTARIO, CANADA           |              |
| CHECKED                                                                                                                                                                                                                        | A.P.     | DRAWING NO.                           | REV. A       |
| MFG. APPR.                                                                                                                                                                                                                     | 7/11     | D350-748-243                          | SHEET 2 OF 4 |
| APPROVED                                                                                                                                                                                                                       | 7/11     | TITLE                                 | SCALE        |
| DE APPR.                                                                                                                                                                                                                       | 7/11     | CROSSTUBE (AS 350/355 HI AFT)         | NTS          |
| DATE                                                                                                                                                                                                                           | 15.01.21 | COPYRIGHT ©2015 BY DART AEROSPACE LTD |              |
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8 7 6 5 4 3 2 1

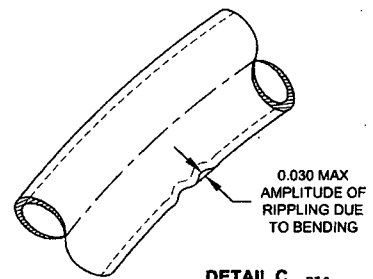


**D350-748-243  
BENDING AND DRILLING DETAIL** 11



C2-3 **VIEW B-B**  
SCALE 4X,  
TUBE SHOWN TRIMMED  
TO HEIGHT

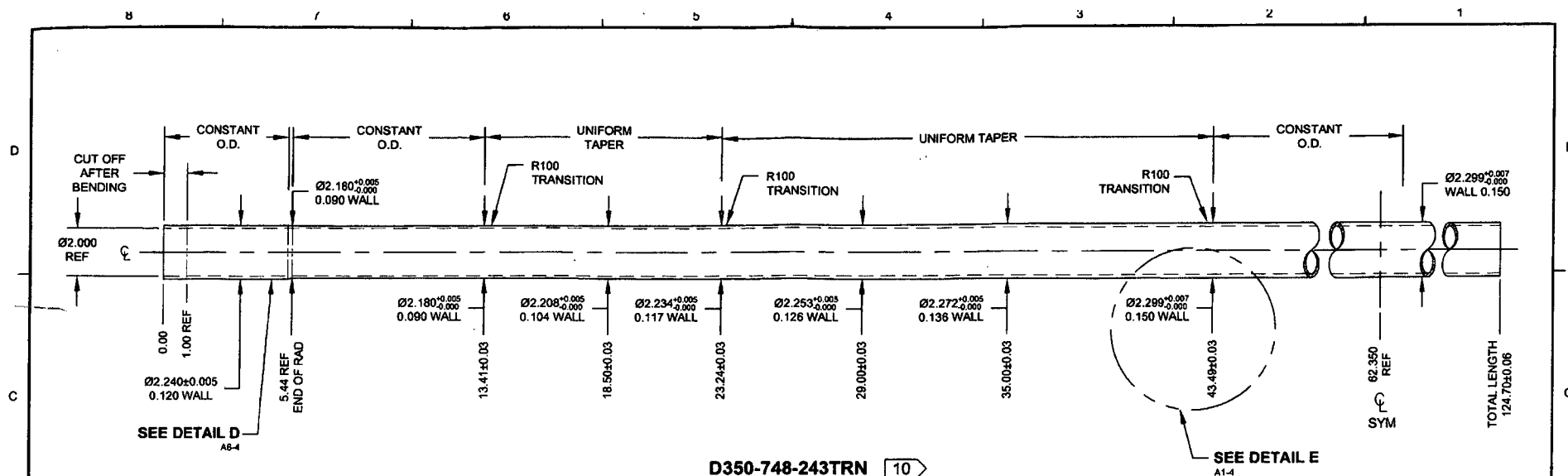
**RELEASED**  
2015 MAR 18



**DETAIL C** D7-3  
SCALE 4X  
RIPPING EXAGGERATED

|                                                                                                                                                                                                                               |                    |                                        |              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------------------|--------------|
| DESIGN                                                                                                                                                                                                                        | 90                 | <b>DART AEROSPACE LTD</b>              |              |
| DRAWN                                                                                                                                                                                                                         | 90                 | HAWKESBURY, ONTARIO, CANADA            |              |
| CHECKED                                                                                                                                                                                                                       | A.P.               | DRAWING NO.                            | REV. A       |
| MFG. APPR.                                                                                                                                                                                                                    | <i>[Signature]</i> | D350-748-243                           | SHEET 3 OF 4 |
| APPROVED                                                                                                                                                                                                                      | <i>[Signature]</i> | TITLE                                  | SCALE        |
| DE APPR.                                                                                                                                                                                                                      | <i>[Signature]</i> | CROSS TUBE (AS 350/355 HI AFT)         | NTS          |
| DATE                                                                                                                                                                                                                          | 15.01.21           | COPYRIGHT © 2015 BY DART AEROSPACE LTD |              |
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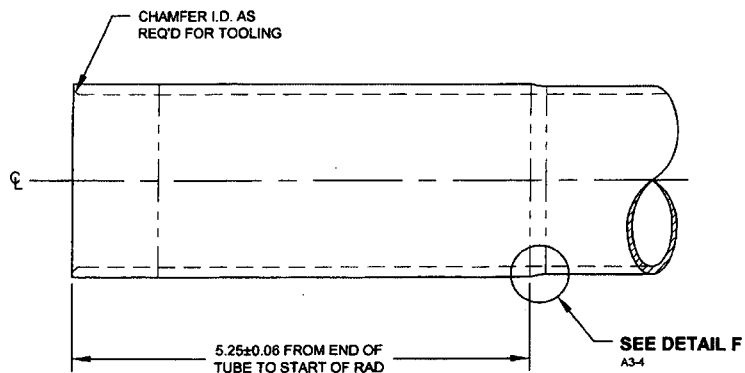
8 7 6 5 4 3 2 1



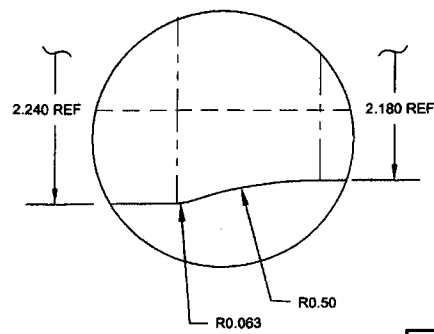
**D350-748-243TRN** 10  
**TURNING DETAIL**

**RELEASE**  
2015 MAR 18 *qp*

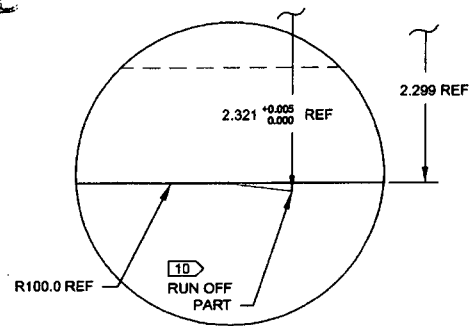
**SEE DETAIL E**  
A1-4



**DETAIL D:**  
**CROSSTUBE CUFF** C7-4  
SCALE 3X



**DETAIL F:**  
**CUFF TRANSITION** A5-4  
NOT TO SCALE



**DETAIL E:**  
**TAPER RUN-OFF** C2-4  
NOT TO SCALE

|            |                    |                                                                                                                                                                                                                                                                                |              |
|------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| DESIGN     | <i>qp</i>          | <b>DART AEROSPACE LTD</b>                                                                                                                                                                                                                                                      |              |
| DRAWN      | <i>qp</i>          | HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                                                    |              |
| CHECKED    | <i>A.P.</i>        | DRAWING NO.                                                                                                                                                                                                                                                                    | REV. A       |
| MFG. APPR. | <i>[Signature]</i> | D350-748-243                                                                                                                                                                                                                                                                   | SHEET 4 OF 4 |
| APPROVED   | <i>[Signature]</i> | TITLE                                                                                                                                                                                                                                                                          | SCALE        |
| DE APPR.   | <i>[Signature]</i> | CROSSTUBE (AS 350/355 HI AFT)                                                                                                                                                                                                                                                  | NTS          |
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NCR: Yes / No

## WORK ORDER NON-CONFORMANCE / UPDATE

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

|                                                                                    |                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                      |                                               |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-----------------------------------------------|------------------------------------|--------------------------------------|------------------------------------|------------------------------------|--------------------------------------------|----------------------------------|----------------------------------------|------------------------------------|----------------------------------------------|--------------------------------|------------------------------------|------------------------------------|-----------------------------------|--|
| Work Order: <u>131183</u><br><br>Part No. <u>D350-748-203</u><br><br>NCR No. _____ | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input checked="" type="checkbox"/><br>Work Order Update <input type="checkbox"/> | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><table style="width:100%; font-size: small;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input checked="" type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table> | Skid-tube <input type="checkbox"/>   | Crosstube <input checked="" type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coord. <input type="checkbox"/> | Quality <input type="checkbox"/> | Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> |  |
| Skid-tube <input type="checkbox"/>                                                 | Crosstube <input checked="" type="checkbox"/>                                                                                                                                              | Water Jet <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Engineering <input type="checkbox"/> |                                               |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Machining <input type="checkbox"/>                                                 | Small Fab <input type="checkbox"/>                                                                                                                                                         | Prod. Eng. Coord. <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Quality <input type="checkbox"/>     |                                               |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Thermoforming <input type="checkbox"/>                                             | Finishing <input type="checkbox"/>                                                                                                                                                         | Rec/Store/Packaging <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Other <input type="checkbox"/>       |                                               |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Large Fab <input type="checkbox"/>                                                 | Composite <input type="checkbox"/>                                                                                                                                                         | Supplier <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                      |                                               |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |

| Root Cause    |   | Date     | Step | Qty | Description of work order update or Non-conformance                                                | Initial Chief Eng | Action Description                                                     | Sign & Date      | Verification   | QC Inspector                     |
|---------------|---|----------|------|-----|----------------------------------------------------------------------------------------------------|-------------------|------------------------------------------------------------------------|------------------|----------------|----------------------------------|
| Doc/Data      |   | 15.08.10 | 110  | 1   | PER CROSSTUBE INSPECTION SHEET, HALF SPAN IS 40.750 (MIN 40.77)<br><br>Δ=0.020<br><br>R.C. process | A.P.<br>15.08.10  | DEVIATION ACCEPTANCE. NEGLIGIBLE EFFECT ON FIT/FORM/FUNCTION/ STRENGTH | A.P.<br>15.08.10 | 23<br>15-09-24 | DAS<br>9<br>9-89<br><br>15-08-11 |
| Equip/Tooling |   |          |      |     |                                                                                                    |                   |                                                                        |                  |                |                                  |
| Operator      |   |          |      |     |                                                                                                    |                   |                                                                        |                  |                |                                  |
| Material      |   |          |      |     |                                                                                                    |                   |                                                                        |                  |                |                                  |
| Setup         |   |          |      |     |                                                                                                    |                   |                                                                        |                  |                |                                  |
| Other         |   |          |      |     |                                                                                                    |                   |                                                                        |                  |                |                                  |
| Process       | ✓ |          |      |     |                                                                                                    |                   |                                                                        |                  |                |                                  |
| Supplier      |   |          |      |     |                                                                                                    |                   |                                                                        |                  |                |                                  |
| Training      |   |          |      |     |                                                                                                    |                   |                                                                        |                  |                |                                  |
| Unapproved    |   |          |      |     |                                                                                                    |                   |                                                                        |                  |                |                                  |

## FAULT CATEGORY

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Landing Gear</b><br><input type="checkbox"/> Bending<br><input type="checkbox"/> Centre Not Concentric to O/S<br><input type="checkbox"/> Cracks<br><input type="checkbox"/> Crushed/Crimped<br><input type="checkbox"/> Cuffs<br><input type="checkbox"/> Heat Treat<br><input type="checkbox"/> Inspection Strip in Tube<br><input type="checkbox"/> Ripples in Bend<br><input type="checkbox"/> Torque Waves in Extrusion<br><input type="checkbox"/> Turning Sequence<br><input type="checkbox"/> Wave/Twist in Tube | <b>General</b><br><input type="checkbox"/> Bend<br><input type="checkbox"/> BOM/Route<br><input type="checkbox"/> Broken/Damaged<br><input type="checkbox"/> Burrs<br><input type="checkbox"/> Contamination<br><input type="checkbox"/> Countersink<br><input type="checkbox"/> Cut Too Short<br><input type="checkbox"/> Drill Holes<br><input type="checkbox"/> Drawing<br><input type="checkbox"/> Finish<br><input type="checkbox"/> Folio | <input type="checkbox"/> Grain<br><input type="checkbox"/> Hardware<br><input type="checkbox"/> Inspection Incomplete<br><input type="checkbox"/> Instructions Incomplete/Unclear<br><input type="checkbox"/> Maintenance<br><input type="checkbox"/> Mislabeled<br><input type="checkbox"/> Misread<br><input type="checkbox"/> Offset<br><input type="checkbox"/> Out of Calibration<br><input type="checkbox"/> Out of Sequence<br><input type="checkbox"/> Outside Dimensions |
| <input type="checkbox"/> Ovalized<br><input checked="" type="checkbox"/> Over/Under tolerance<br><input type="checkbox"/> Part Incorrect<br><input type="checkbox"/> Part Lost/Missing<br><input type="checkbox"/> Part Moved<br><input type="checkbox"/> Positioned Wrong<br><input type="checkbox"/> Power Loss/Surge                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <input type="checkbox"/> Pressure/Forced<br><input type="checkbox"/> Temperature/Cure<br><input type="checkbox"/> Weld<br><input type="checkbox"/> Wrong Stock Pulled<br><input type="checkbox"/> Other                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |



# skyservice Work Order Traveler

Sky Service F.B.O. Inc.

DOT APP 53-89 / EASA 145.7142 / BDA AMO 385

|                          |                                      |                      |                         |
|--------------------------|--------------------------------------|----------------------|-------------------------|
| <b>WO #:</b> MWO25564    | <b>Customer:</b> Dart Aerospace Ltd. | <b>Dept:</b> NDT YUL | <b>Reference:</b> 29562 |
| <b>Descr:</b>            | <b>PN:</b>                           | <b>S/N:</b>          | <b>Qty:</b> 1           |
| <b>Make:</b>             | <b>Model:</b>                        | <b>Reg:</b>          | <b>A/C S/N:</b>         |
| <b>TSN:</b>              | <b>CSN:</b>                          | <b>TSO:</b>          |                         |
| <b>Task:</b> UNSCHEDULED |                                      |                      | <b>Sequence:</b> 1      |

## Work Required:

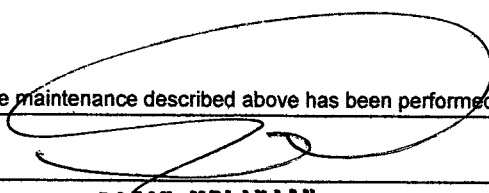
CARRY OUT NDT ON 9 CROSSTUBES AS PE PO29562

3 SSFWD CROSSTUBES , ITEM ID# D350-748-103 , WORK ORDER ID# 131170, 131171, 131173

6 SS AFT CROSSTUBES , ITEM ID# D350-748-203 , WORK ORDER ID# 131182, 131183, 131184, 131185, 131186, 131187

| Action Taken:                                                                                                                              |          |     |     |       |         | Date:       | Initial/Stamp:                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------|----------|-----|-----|-------|---------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LPI C/O IAW ASTM E-1417M-13<br><br>***NO CRACK FOUND***<br><br>PEN. ZL-56, MPO13600, UV M-20141, CLEANER SKC-S MPO13923 ,<br>DEV. MPO11715 |          |     |     |       |         | AUG 24 2015 | <br> |
| Description                                                                                                                                | Location | P/N | Qty | Batch | S/N Off | S/N On      |                                                                                                                                                                             |
|                                                                                                                                            |          |     |     |       |         |             |                                                                                                                                                                             |
|                                                                                                                                            |          |     |     |       |         |             |                                                                                                                                                                             |
|                                                                                                                                            |          |     |     |       |         |             |                                                                                                                                                                             |
|                                                                                                                                            |          |     |     |       |         |             |                                                                                                                                                                             |
|                                                                                                                                            |          |     |     |       |         |             |                                                                                                                                                                             |
|                                                                                                                                            |          |     |     |       |         |             |                                                                                                                                                                             |
|                                                                                                                                            |          |     |     |       |         |             |                                                                                                                                                                             |

I certified that the maintenance described above has been performed in accordance with the applicable standard of airworthiness.

|                                                                                                       |                                                                                                               |                             |
|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-----------------------------|
| <b>Signature:</b>  | <b>ACA/SCA Stamp</b><br> | <b>Date:</b><br>AUG 24 2015 |
| <b>Name:</b> RAFIK CHELIKIAN                                                                          |                                                                                                               |                             |

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: \_\_\_\_\_

Date: \_\_\_\_\_

Work Order update only ☒

|                                                                                                                                                                                                         |                          |                                                                                                                                                                                           |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          |                                                    |                          |                       |                          |                      |                          |           |                          |             |                          |           |                          |           |                          |                   |                          |         |                          |               |                          |           |                                     |                     |                          |       |                          |           |                          |           |                          |          |                          |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|----------------------------------------------------|--------------------------|-----------------------|--------------------------|----------------------|--------------------------|-----------|--------------------------|-------------|--------------------------|-----------|--------------------------|-----------|--------------------------|-------------------|--------------------------|---------|--------------------------|---------------|--------------------------|-----------|-------------------------------------|---------------------|--------------------------|-------|--------------------------|-----------|--------------------------|-----------|--------------------------|----------|--------------------------|--|--|
| Work Order: <u>13183</u><br>Part No. <u>D350-748-203</u><br>NCR No. _____                                                                                                                               |                          | <b>DISPOSITION</b><br>Rework <input checked="" type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/> |                                     | <b>AGAINST DEPARTMENT/PROCESS</b><br><table style="width:100%; border: none;"> <tr> <td style="width:15%;">Skid-tube</td><td><input type="checkbox"/></td> <td style="width:15%;">Cross tube</td><td><input type="checkbox"/></td> <td style="width:15%;">Water Jet</td><td><input type="checkbox"/></td> <td style="width:15%;">Engineering</td><td><input type="checkbox"/></td> </tr> <tr> <td>Machining</td><td><input type="checkbox"/></td> <td>Small Fab</td><td><input type="checkbox"/></td> <td>Prod. Eng. Coord.</td><td><input type="checkbox"/></td> <td>Quality</td><td><input type="checkbox"/></td> </tr> <tr> <td>Thermoforming</td><td><input type="checkbox"/></td> <td>Finishing</td><td><input checked="" type="checkbox"/></td> <td>Rec/Store/Packaging</td><td><input type="checkbox"/></td> <td>Other</td><td><input type="checkbox"/></td> </tr> <tr> <td>Large Fab</td><td><input type="checkbox"/></td> <td>Composite</td><td><input type="checkbox"/></td> <td>Supplier</td><td><input type="checkbox"/></td> <td></td><td></td> </tr> </table> |                          |                                                    |                          | Skid-tube             | <input type="checkbox"/> | Cross tube           | <input type="checkbox"/> | Water Jet | <input type="checkbox"/> | Engineering | <input type="checkbox"/> | Machining | <input type="checkbox"/> | Small Fab | <input type="checkbox"/> | Prod. Eng. Coord. | <input type="checkbox"/> | Quality | <input type="checkbox"/> | Thermoforming | <input type="checkbox"/> | Finishing | <input checked="" type="checkbox"/> | Rec/Store/Packaging | <input type="checkbox"/> | Other | <input type="checkbox"/> | Large Fab | <input type="checkbox"/> | Composite | <input type="checkbox"/> | Supplier | <input type="checkbox"/> |  |  |
| Skid-tube                                                                                                                                                                                               | <input type="checkbox"/> | Cross tube                                                                                                                                                                                | <input type="checkbox"/>            | Water Jet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <input type="checkbox"/> | Engineering                                        | <input type="checkbox"/> |                       |                          |                      |                          |           |                          |             |                          |           |                          |           |                          |                   |                          |         |                          |               |                          |           |                                     |                     |                          |       |                          |           |                          |           |                          |          |                          |  |  |
| Machining                                                                                                                                                                                               | <input type="checkbox"/> | Small Fab                                                                                                                                                                                 | <input type="checkbox"/>            | Prod. Eng. Coord.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <input type="checkbox"/> | Quality                                            | <input type="checkbox"/> |                       |                          |                      |                          |           |                          |             |                          |           |                          |           |                          |                   |                          |         |                          |               |                          |           |                                     |                     |                          |       |                          |           |                          |           |                          |          |                          |  |  |
| Thermoforming                                                                                                                                                                                           | <input type="checkbox"/> | Finishing                                                                                                                                                                                 | <input checked="" type="checkbox"/> | Rec/Store/Packaging                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <input type="checkbox"/> | Other                                              | <input type="checkbox"/> |                       |                          |                      |                          |           |                          |             |                          |           |                          |           |                          |                   |                          |         |                          |               |                          |           |                                     |                     |                          |       |                          |           |                          |           |                          |          |                          |  |  |
| Large Fab                                                                                                                                                                                               | <input type="checkbox"/> | Composite                                                                                                                                                                                 | <input type="checkbox"/>            | Supplier                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <input type="checkbox"/> |                                                    |                          |                       |                          |                      |                          |           |                          |             |                          |           |                          |           |                          |                   |                          |         |                          |               |                          |           |                                     |                     |                          |       |                          |           |                          |           |                          |          |                          |  |  |
| Date: _____                                                                                                                                                                                             |                          | Step #: _____                                                                                                                                                                             |                                     | QTY Effective: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          | MRB (QSI042) Approval<br>DAS<br>12 15/2/27<br>9-89 |                          |                       |                          |                      |                          |           |                          |             |                          |           |                          |           |                          |                   |                          |         |                          |               |                          |           |                                     |                     |                          |       |                          |           |                          |           |                          |          |                          |  |  |
| <b>Description Work Order Deviation</b>                                                                                                                                                                 |                          |                                                                                                                                                                                           |                                     | <b>Disposition</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                    |                          |                       |                          |                      |                          |           |                          |             |                          |           |                          |           |                          |                   |                          |         |                          |               |                          |           |                                     |                     |                          |       |                          |           |                          |           |                          |          |                          |  |  |
| To increase adhesion of prime/paint,<br>use the following:<br>Axalta 1320SS Cleaner<br>Axalta 230S Metakok.<br><br>Tests show that Axalta provides superior<br>adhesion vs normal procedure per QSI 005 |                          |                                                                                                                                                                                           |                                     | Axalta 1320S Cleaner: 132520<br>B/N<br><br>Axalta 230S Metakok: 132474<br>B/N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                    |                          |                       |                          |                      |                          |           |                          |             |                          |           |                          |           |                          |                   |                          |         |                          |               |                          |           |                                     |                     |                          |       |                          |           |                          |           |                          |          |                          |  |  |
|                                                                                                                                                                                                         |                          |                                                                                                                                                                                           |                                     | Completed By<br>DAS<br>41 15-8-26<br>9-89<br>Lead hand / Supervisor<br>Approval Verification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                                    |                          |                       |                          |                      |                          |           |                          |             |                          |           |                          |           |                          |                   |                          |         |                          |               |                          |           |                                     |                     |                          |       |                          |           |                          |           |                          |          |                          |  |  |
|                                                                                                                                                                                                         |                          |                                                                                                                                                                                           |                                     | QC / QA Coordinator<br>Approval                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          |                                                    |                          |                       |                          |                      |                          |           |                          |             |                          |           |                          |           |                          |                   |                          |         |                          |               |                          |           |                                     |                     |                          |       |                          |           |                          |           |                          |          |                          |  |  |
| <b>Root Cause</b>                                                                                                                                                                                       |                          |                                                                                                                                                                                           |                                     | <b>FAULT CATEGORY</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                    |                          |                       |                          |                      |                          |           |                          |             |                          |           |                          |           |                          |                   |                          |         |                          |               |                          |           |                                     |                     |                          |       |                          |           |                          |           |                          |          |                          |  |  |
| Environment                                                                                                                                                                                             | <input type="checkbox"/> | No Re-verification                                                                                                                                                                        | <input type="checkbox"/>            | Pressure/Forced                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <input type="checkbox"/> | Temperature/Cure                                   | <input type="checkbox"/> | Power Loss/Surge      | <input type="checkbox"/> | Positioned Wrong     | <input type="checkbox"/> |           |                          |             |                          |           |                          |           |                          |                   |                          |         |                          |               |                          |           |                                     |                     |                          |       |                          |           |                          |           |                          |          |                          |  |  |
| Design                                                                                                                                                                                                  | <input type="checkbox"/> | Operator                                                                                                                                                                                  | <input type="checkbox"/>            | Bending                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <input type="checkbox"/> | Set-up                                             | <input type="checkbox"/> | Folio/Program         | <input type="checkbox"/> | Outside Dimensions   | <input type="checkbox"/> |           |                          |             |                          |           |                          |           |                          |                   |                          |         |                          |               |                          |           |                                     |                     |                          |       |                          |           |                          |           |                          |          |                          |  |  |
| Doc/Data                                                                                                                                                                                                | <input type="checkbox"/> | Offset/Setup                                                                                                                                                                              | <input type="checkbox"/>            | Centre Not Concentric                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <input type="checkbox"/> | BOM/Route                                          | <input type="checkbox"/> | Grain                 | <input type="checkbox"/> | Over/Under tolerance | <input type="checkbox"/> |           |                          |             |                          |           |                          |           |                          |                   |                          |         |                          |               |                          |           |                                     |                     |                          |       |                          |           |                          |           |                          |          |                          |  |  |
| Equip/Tooling                                                                                                                                                                                           | <input type="checkbox"/> | Supplier                                                                                                                                                                                  | <input type="checkbox"/>            | Cracks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <input type="checkbox"/> | Broken/Damage/Defect                               | <input type="checkbox"/> | Weld                  | <input type="checkbox"/> | Part Incorrect       | <input type="checkbox"/> |           |                          |             |                          |           |                          |           |                          |                   |                          |         |                          |               |                          |           |                                     |                     |                          |       |                          |           |                          |           |                          |          |                          |  |  |
| Handling/Pre                                                                                                                                                                                            | <input type="checkbox"/> | Training                                                                                                                                                                                  | <input type="checkbox"/>            | Crimp/Kink/Ripple/Wave                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <input type="checkbox"/> | Inspection Incomplete/Unqualified                  | <input type="checkbox"/> | Wrong Stock Pulled    | <input type="checkbox"/> | Part Lost/Missing    | <input type="checkbox"/> |           |                          |             |                          |           |                          |           |                          |                   |                          |         |                          |               |                          |           |                                     |                     |                          |       |                          |           |                          |           |                          |          |                          |  |  |
| Material                                                                                                                                                                                                | <input type="checkbox"/> | Use for Testing                                                                                                                                                                           | <input type="checkbox"/>            | Cuffs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <input type="checkbox"/> | Contamination                                      | <input type="checkbox"/> | Out of Sequence       | <input type="checkbox"/> | Part Moved           | <input type="checkbox"/> |           |                          |             |                          |           |                          |           |                          |                   |                          |         |                          |               |                          |           |                                     |                     |                          |       |                          |           |                          |           |                          |          |                          |  |  |
| Internal Transport                                                                                                                                                                                      | <input type="checkbox"/> | Poor Information                                                                                                                                                                          | <input type="checkbox"/>            | Crushing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <input type="checkbox"/> | Countersink                                        | <input type="checkbox"/> | Off-set               | <input type="checkbox"/> | Drawing              | <input type="checkbox"/> |           |                          |             |                          |           |                          |           |                          |                   |                          |         |                          |               |                          |           |                                     |                     |                          |       |                          |           |                          |           |                          |          |                          |  |  |
| Tribal Knowledge                                                                                                                                                                                        | <input type="checkbox"/> | Rushing                                                                                                                                                                                   | <input type="checkbox"/>            | Heat Treat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <input type="checkbox"/> | Cut Too Short                                      | <input type="checkbox"/> | Mislabeled            | <input type="checkbox"/> | Finish               | <input type="checkbox"/> |           |                          |             |                          |           |                          |           |                          |                   |                          |         |                          |               |                          |           |                                     |                     |                          |       |                          |           |                          |           |                          |          |                          |  |  |
| LOA                                                                                                                                                                                                     | <input type="checkbox"/> | Product Improvement                                                                                                                                                                       | <input type="checkbox"/>            | Wave/Twist in Tube                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <input type="checkbox"/> | Instructions Incomplete/Unclear                    | <input type="checkbox"/> | Fit/Function          | <input type="checkbox"/> | Misread              | <input type="checkbox"/> |           |                          |             |                          |           |                          |           |                          |                   |                          |         |                          |               |                          |           |                                     |                     |                          |       |                          |           |                          |           |                          |          |                          |  |  |
| Substation                                                                                                                                                                                              | <input type="checkbox"/> | Process Improvement                                                                                                                                                                       | <input type="checkbox"/>            | Marks/Chatter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <input type="checkbox"/> | Drill Holes                                        | <input type="checkbox"/> | Misaligned/off center | <input type="checkbox"/> | Turning Sequence     | <input type="checkbox"/> |           |                          |             |                          |           |                          |           |                          |                   |                          |         |                          |               |                          |           |                                     |                     |                          |       |                          |           |                          |           |                          |          |                          |  |  |
| Past Expiry Date                                                                                                                                                                                        | <input type="checkbox"/> | Manufacturing Process                                                                                                                                                                     | <input type="checkbox"/>            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          |                                                    |                          |                       |                          |                      |                          |           |                          |             |                          |           |                          |           |                          |                   |                          |         |                          |               |                          |           |                                     |                     |                          |       |                          |           |                          |           |                          |          |                          |  |  |
| Misidentified                                                                                                                                                                                           | <input type="checkbox"/> | Past Due                                                                                                                                                                                  | <input type="checkbox"/>            | OTHER: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                                    |                          |                       |                          |                      |                          |           |                          |             |                          |           |                          |           |                          |                   |                          |         |                          |               |                          |           |                                     |                     |                          |       |                          |           |                          |           |                          |          |                          |  |  |

DAS

02

9-89

**4.0 WEIGHT AND BALANCE**

The following weight and balance information is for Dart crosstube installations only. This data should be similar to the existing installation. Differences from the parts removed are the responsibility of the installer.

| DART CROSSTUBE | FWD/<br>AFT | WEIGHT    | STA      | MOMENT      |
|----------------|-------------|-----------|----------|-------------|
| D350-748-101   | Fwd         | 35.2 lb   | 106.3 in | 3742 lb-in  |
| D350-748-103   |             | (16.0 kg) | (2.70 m) | (43.2 kg-m) |
| D350-748-201   | Aft         | 34.7 lb   | 162.4 in | 5635 lb-in  |
| D350-748-203   |             | (15.7 kg) | (4.12 m) | (64.7 kg-m) |

**5.0 PARTS LIST**

| Qty<br>-101 | Qty<br>-103 | Qty<br>-201 | Qty<br>-203 | Part Number   | Description                                      |
|-------------|-------------|-------------|-------------|---------------|--------------------------------------------------|
| X           |             |             |             | D350-748-101  | CROSSTUBE INSTALLATION, AS 350/355 HIGH FWD      |
|             | X           |             |             | D350-748-103  | CROSSTUBE INSTALLATION, AS 350/355 HIGH FWD (SS) |
|             |             | X           |             | D350-748-201  | CROSSTUBE INSTALLATION, AS 350/355 HIGH AFT      |
|             |             |             | X           | D350-748-203  | CROSSTUBE INSTALLATION, AS 350/355 HIGH AFT (SS) |
| 1           |             |             |             | D350-748-141  | CROSSTUBE ASSEMBLY, AS 350/355 HIGH FWD          |
|             | 1           |             |             | D350-748-143  | CROSSTUBE ASSEMBLY, AS 350/355 HIGH FWD (SS)     |
|             |             | 1           |             | D350-748-241  | CROSSTUBE ASSEMBLY, AS 350/355 HIGH AFT          |
|             |             |             | 1           | D350-748-243  | CROSSTUBE ASSEMBLY, AS 350/355 HIGH AFT (SS)     |
| *2          | *2          | *2          | *2          | D3502-1       | SUPPORT                                          |
| *2          | *2          | *2          | *2          | D5123-7       | CLAMP CUSHION                                    |
| *1          |             | *1          |             | AELS-1032-225 | INSERT                                           |
|             | *1          |             | *1          | AETC-1032     | INSERT                                           |
| *2          | *2          | *2          | *2          | MS21920-20    | CLAMP (OR MS21920-21/-22)                        |
| *1          |             | *1          |             | MS27039-1-10  | SCREW                                            |
|             | *1          |             | *1          | NAS1685-3-8   | SCREW (OR MS51958-63)                            |
| *1          |             | *1          |             | NAS1149D0363J | WASHER (OR AN960JD10)                            |
|             | *1          |             | *1          | NAS1149C0363R | WASHER (OR AN960C10)                             |
| 4           | 4           | 4           | 4           | D3500-1       | SADDLE                                           |
| 16          | 16          | 16          | 16          | D3501-1       | BUSHING                                          |
| 16          | 16          | 16          | 16          | AN4-6A        | BOLT                                             |
| 8           | 8           | 8           | 8           | AN4-41A       | BOLT                                             |
| 4           | 4           | 4           | 4           | AN5-32A       | BOLT                                             |
| 32          | 32          | 32          | 32          | NAS1149D0463J | WASHER (OR AN960JD416)                           |
| 8           | 8           | 8           | 8           | NAS1149D0563J | WASHER (OR AN960JD516)                           |
| 24          | 24          | 24          | 24          | MS21042L4     | NUT (OR MS21042-4)                               |
| 4           | 4           | 4           | 4           | MS21042L5     | NUT (OR MS21042-5)                               |

\* REFERENCE ONLY. PARTS ARE INCLUDED IN D350-748-141/-143/-241/-243 ASSEMBLIES ABOVE

# Work Order ID 131183

Monday, March 30, 2015 9:10:45 AM

**\*131183\***

Page 1

Item ID: D350-748-203  
 Revision ID:  
 Item Name: SS Aft Crosstube AS350 / AS355  
 Start Date: 3/30/2015 Start Qty: 1.00  
 Required Date: 3/30/2015 Req'd Qty: 1.00  
 Reference:

Accept

**\*N900040100\***

Setup Start **\*NS1\***  
 Stop **\*NS2\***

Cust Item ID:  
 Customer:

Approvals: Process Plan: ML5 Date: 15-03-30 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***  
 Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| Draw Nbr                       | Revision Nbr             |                      |         |        |              |               |               |                  |                |

|                               |                                                      |      |        |      |  |  |  |  |  |
|-------------------------------|------------------------------------------------------|------|--------|------|--|--|--|--|--|
| D350-748-243                  | A                                                    |      |        |      |  |  |  |  |  |
| 100                           | Document Control                                     | 0.00 | DAS    | 5    |  |  |  |  |  |
| <b>*100*</b>                  | DOCUMENT CONTROL                                     |      |        | 9-00 |  |  |  |  |  |
| DC                            |                                                      |      |        |      |  |  |  |  |  |
| Doc.Control -USB or Paperwork | Memo                                                 | 0.00 |        |      |  |  |  |  |  |
|                               | Photocopy bluefile & type labels per PPPD350-748-201 |      | CHG001 |      |  |  |  |  |  |

ML5 SEP 0-9-2015

|                      |                                                                               |      |  |  |  |  |  |  |  |
|----------------------|-------------------------------------------------------------------------------|------|--|--|--|--|--|--|--|
| 110                  |                                                                               | 0.00 |  |  |  |  |  |  |  |
| <b>*110*</b>         | BENDING MACHINE - CROSSTUBES                                                  |      |  |  |  |  |  |  |  |
| CNC Bend 2           |                                                                               |      |  |  |  |  |  |  |  |
| CNC Alpha 160 Bender | Memo                                                                          | 0.00 |  |  |  |  |  |  |  |
|                      | Bend tube as per Dwg D350-748-243 using CNC bender program D350A and Folio 1T |      |  |  |  |  |  |  |  |
|                      | *****UNDER BEND .225" PER SIDE*****                                           |      |  |  |  |  |  |  |  |
|                      | *****USE (4) DT9824 SHIM BLOC TO CHECK STRAIGHTNESS*****                      |      |  |  |  |  |  |  |  |

VW 15-08-10

**P.T.O.**

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